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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/909,344 | 07/19/2001 | Donald R. Brewer | DFOSS.0101 | 9632 |
| 22858 | 7590 | 12/17/2003 | EXAMINER | |
| CARSTENS YEE & CAHOON, LLP P O BOX 802334 DALLAS, TX 75380 | | | MISKA, VIT W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2841 | |
| DATE MAILED: 12/17/2003 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

CA

Office Action Summary

Application No.

09/909,344

Applicant(s)

BREWER ET AL.

Examiner

Vit W. Miska

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-6, 8, 10 15, 16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al in view of Comiskey et al ('578). The Freeman et al patent discloses a timepiece module (col. 1, line 17 and col. 5, lines 17-18) including timer incorporated in microprocessor 40 for displaying stopwatch and current time (col. 5, lines 17-18), driver 42, controller 40 having an output as shown in Fig. 3, bi-stable display 12 (col. 3, lines 32ff), voltage source 14 (battery). The reference further suggests that other displays may be used at col. 3, line 56.

2. With respect to the display, the Freeman et al patent does not disclose details of the manner of switching power to the display, other than to indicate that the bi-stable display will maintain an image when power is removed (col. 3, lines 34-35). Thus, one of ordinary skill in the art will recognize that the bi-stable display by definition need not be powered continuously. Comiskey et al further describes bi-stable displays which are

stable for hours or days (col. 2, lines 42-43). One of ordinary skill in the art having both references would thus be taught to power the display of Freeman et al less than sixty times a minute by using the bi-stable display suggested or any of the other bi-stable displays suggested in Comiskey et al as a means for conserving power. The specific refresh rate would be selected to correspond with the frequency of data updates to the display.

3. With respect to claim 25, a voltage step up circuit is not specifically mentioned in Freeman et al, however, driver circuit 42 "develops the voltages appropriate to activate and deactivate the display pixels" (col. 3, lines 60-62). Thus, one skilled in the art would be familiar with the manner of driving the display elements and provide a step-up circuit for the power source for producing the necessary voltages to activate the bi-stable display.

4. With respect to claim 6, Freeman et al suggests the use of "suspended particle displays" at col. 3, line 56. Thus, an electrophoretic display, being a specific type of such display, would be obvious for use therein and described in detail in Comiskey et al.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al and Comiskey et al as applied to claim 1 above, and further in view of Simoni et al. The latter reference teaches use of a gyricon display as a bi-stable type display (col. 3,

lines 60ff) for use in a flexible display environment (col. 4, lines 12 and 18). Thus, one of ordinary skill in the art having the three references would have a suggestion of using the gyricon display of Simoni et al in Freeman et al as a type of suspended particle display suggested by therein.

6. Claims 9, 11-14, 20-24, 26-29, 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al and Comiskey et al as applied to claim 1 above, and further in view of Brewer ('185). Regarding claims 9 and 11-14, and 33-36, the specific display effects are not described in Freeman et al. However, Brewer et al teaches production of various display patterns and effects in a timepiece by varying color and display patterns. The patterns are varied at a selected rate (col. 5, line 40) or manually (col. 9, line 6). One of ordinary skilled in the art having these references would thus be taught that the display in Freeman et al may be inverted or color-reversed as described in Brewer et al. With regard to claims 33, an alarm is not specifically mentioned in Brewer et al. However, the patentee suggests at col. 5, lines 38-41 that the display change between two colors at a user selected rate. Thus, a timer using an "alarm" for this purpose would obviously be necessary to activate the display drivers at the appropriate alarm times.

7. With respect to claims 20-22, 26-29, 31 and 32, Brewer suggests illuminating the display by means of an EL display (col. 10, line 19). It would thus be obvious for

one skilled in the art to provide a back light for the display in Freeman et al as taught by Brewer et al to facilitate reading the display in the dark. Regarding claims 22-24, Brewer further teaches plural colors for the display which would be obvious for one skilled in the art to incorporate in the Freeman device to provide color variation thereto.

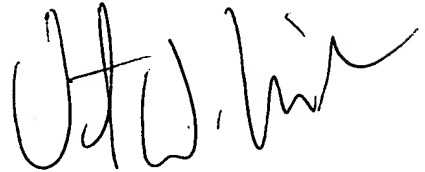
8. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al and Comiskey et al as applied to claim 15 above, and further in view of Kamiyama et al. The latter reference teaches the use of solar, mechanical or thermal power source in a timepiece. One of ordinary skill in the art would thus be taught to use any of these conventional power sources as the voltage source in Freeman et al as an obvious choice of available technology.

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al, Comiskey et al and Simoni et al as applied to claim 7 above, and further in view of Brewer et al ('185). Provision of a light source for the gyricon display of Simoni et al would be obvious to one skilled in the art as a means for assisting viewing the display in the dark, as noted above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vit W. Miska whose telephone number is 703-308-3096. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 703-308-3121. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.



Vit Miska
Primary Examiner

VM
12/11/2003